

Claims

1. Surface-modified effect pigments based on a substrate, characterised in that one or more calcined oxide layers, alone or mixed with sulfates, phosphates and/or borates, and an organic coating are applied to the substrate.
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2. Surface-modified effect pigments according to Claim 1, characterised in that the calcined oxide layer consists of the oxides of Al, Si, Zr, Zn, Ce, Fe or mixtures thereof.
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3. Surface-modified effect pigments according to Claim 1 or 2, characterised in that the organic coating consists of organosilanes, -aluminates, -titanates, -zirconates and/or mixtures thereof.
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4. Surface-modified effect pigments according to Claim 1, characterised in that the substrate is a flake-form support and/or a flake-form support coated with one or more metal oxide, metal oxide hydrate, metal suboxide, metal, metal fluoride, metal nitride, metal oxynitride layers.
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5. Surface-modified effect pigments according to one of Claims 1 to 4, characterised in that the average thickness of the calcined oxide layers of the post-coating is 0.5-20 nm.
- 25 6. Process for the preparation of a surface-modified effect pigment according to Claim 1, characterised in that one or more oxide layers, alone or mixed with sulfates, phosphates and/or borates, are applied to a substrate, subsequently calcined, and an organic coating is applied.
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7. Process according to Claim 6, characterised in that the substrate is a flake-form support and/or a flake-form support coated with one or more metal oxide, metal oxide hydrate, metal suboxide, metal, metal fluoride, metal nitride, metal oxynitride layers.
8. Process according to Claim 6 or 7, characterised in that the oxide layer is applied by wet-chemical methods and/or by the sol-gel process.
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9. Process according to Claim 6, characterised in that the calcination is carried out at temperatures of 250 to 900°C.
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10. Process according to Claim 6, characterised in that the organic coating consists of organosilanes, -aluminates, -titanates, -zirconates and/or mixtures thereof.
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11. Use of surface-modified effect pigments according to Claim 1 in paints, coatings, printing inks, plastics, films, in security applications, for laser marking, in thermal protection or for colouring seed.

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